#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-007232 Address: 333 Burma Road **Date Inspected:** 05-Jun-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Location: Shanghai, China

**CWI Name:** ZPMC and ABF **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component: SAS** Tower

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

#### Bay #10 South and North Tower Shop

North Tower Lift #2:- Caltrans QA inspector observed three ZPMC welding operators performed semi-automatic SAW on outer corner longitudinal seam weld that connected skin plate A to E of north tower lift #2. The semi-automatic SAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

North Tower lift#1:- Caltrans QA Inspector observed two ZPMC welders and four grinders in process of grinding and FCAW repair process on fit lugs and rat holes of interior diaphragms. The fit lugs and rat holes located at the elevation 53m to 80.75m diaphragm sections that connected skin plate D. The FCAW repair process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

South Tower Base Plate: - Caltrans QA Inspector observed a welding operator in process of semi-automatic SAW on 120mm thick CJP weld of south tower base plate. The weld number is SSD1-A111B/H-3A. The semi-automatic SAW process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Bay #11 South and North Tower Shop



# WELDING INSPECTION REPORT

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West Tower Lift #1:- Caltrans QA inspector observed three ZPMC welding operators performed semi-automatic SAW on outer corner longitudinal seam weld that connected skin plate D to E of west tower lift #1. The semi-automatic SAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

West Tower lift#1:- Caltrans QA Inspector observed two ZPMC welders and five grinders in process of grinding and FCAW repair process on fit lugs and rat holes of interior diaphragms. The fit lugs and rat holes located at the elevation 9m to 47.6m diaphragm sections that connected skin plate A, B and C of west tower lift #1. The FCAW repair process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

West Tower lift#2:- Caltrans QA Inspector observed two ZPMC welders and five grinders in process of grinding and FCAW repair process on fit lugs and rat holes of interior diaphragms. The fit lugs and rat holes located at the elevation 53m to 80.75m diaphragm sections that connected skin plate A and B of west tower lift #2. The FCAW repair process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

East Tower Lift #4: -Caltrans QAI observed ZPMC a welding operator performed semi-automatic SAW on 60mm to 90mm wall thick CJP and PJP welds of skin plate C for east tower lift #4. The weld number for CJP and PJP are ESD1-FCSA4-2A/L-83B, 63B, 42B, 27B-2 and ESD1-FCSA4-2A/L-74, 47, 39. The SAW repair process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

West Tower Base Plate: - Caltrans QA Inspector observed a welding operator in process of semi-automatic SAW on 120mm thick CJP weld of west tower base plate. The weld number is WSD1-A423B/H-63B. The FCAW repair process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

As noted within report above.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer